Lumen® Intelligent Internet

Security Reference Architecture Guide

Intelligent Internet: Layered Holistic Protection

Lumen® Security Solutions are built to take the pressure off your existing environments and better protect your data and apps.

Lumen® DDoS Essentials

Volumetric protection designed to prevent circuits from being flooded by a DDoS attack.

What it Blocks

- Volumetric Bots
- Volumetric Reflectors

Lumen Defender℠

Automatically blocks traffic to/from internet-based hosts belonging to threat actors.

What it Blocks

- Bots
- Attacks
- Proxy
- Spam
- Malware
- Phishing
- C2
- Scanning

Customer Firewall

Filters traffic based on custom, user-defined rules.

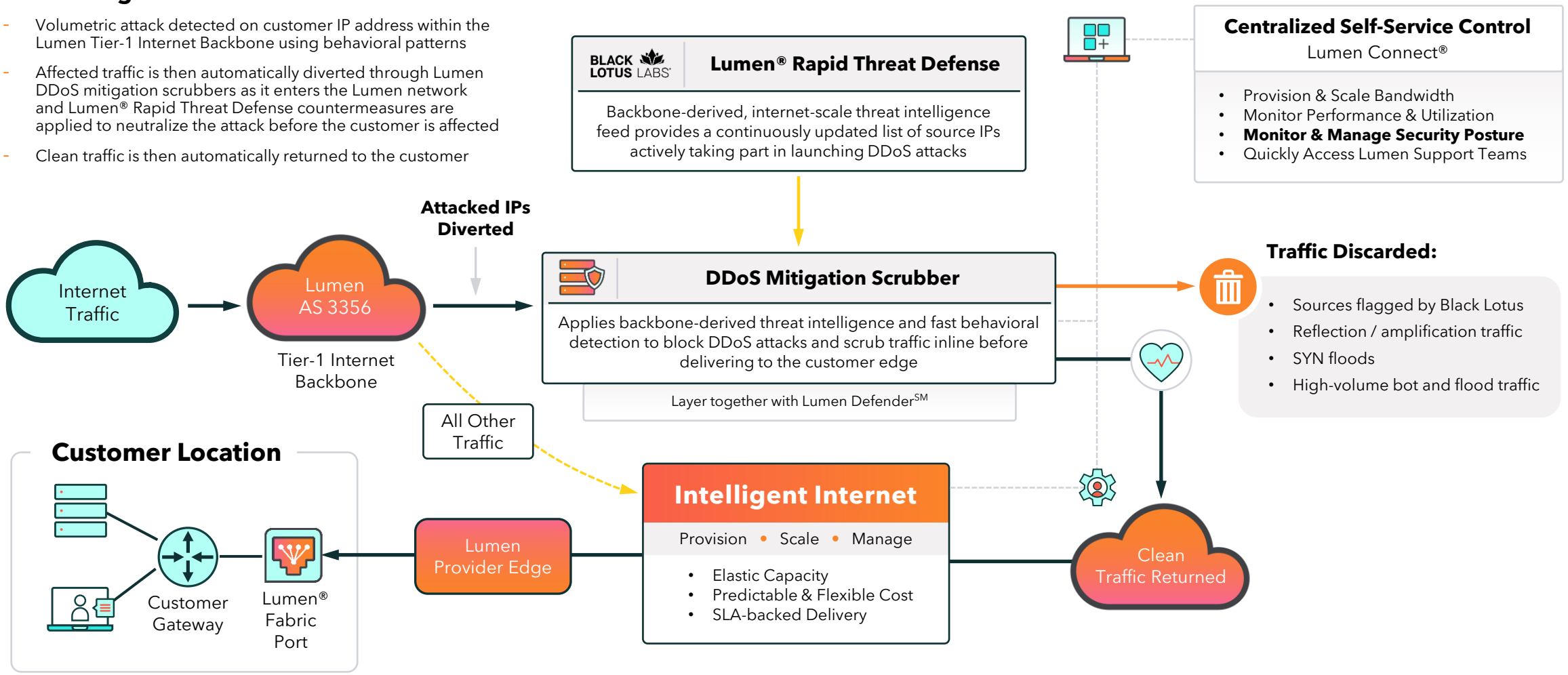
What it Blocks

- Unsupported Applications
- Unused Ports
- Unauthorized Users

Lumen® DDoS Essentials for Intelligent Internet

Network-embedded volumetric protection powered by Black Lotus Labs® intelligence.

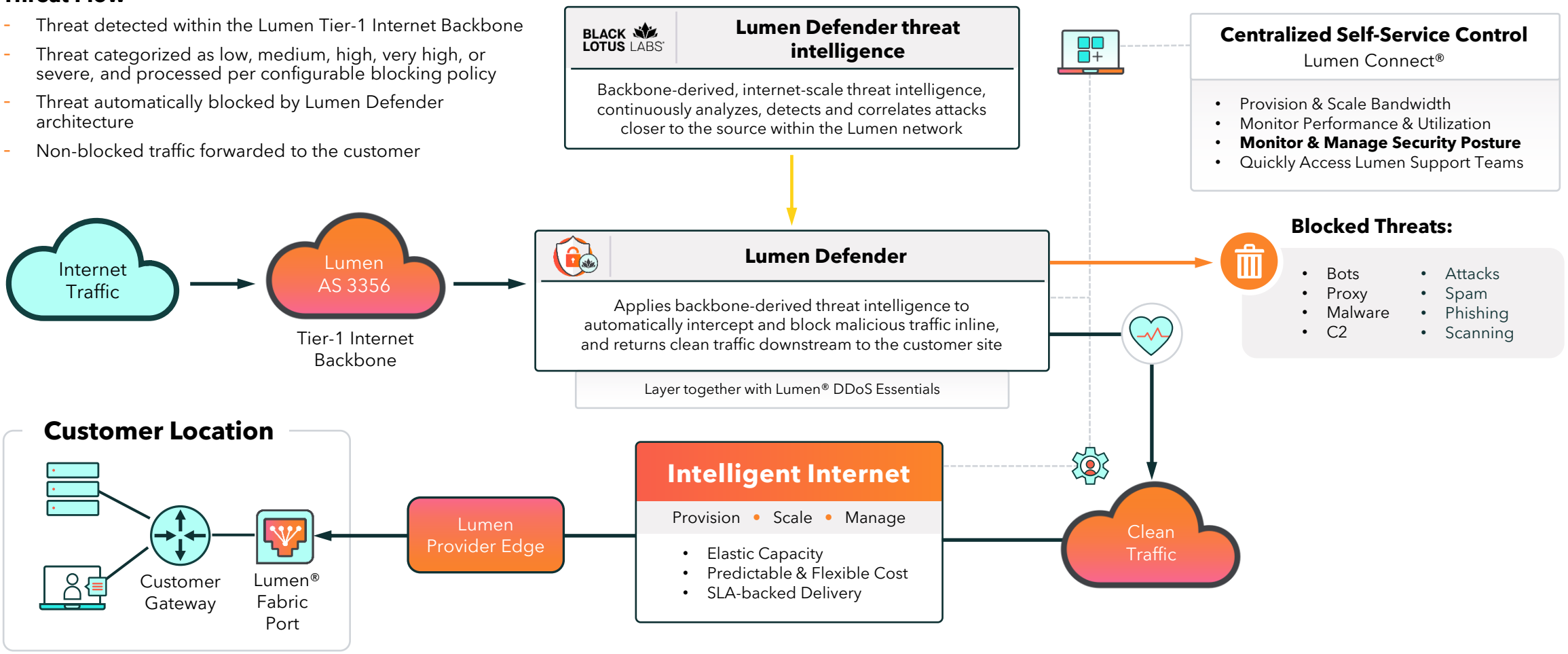
- **DDoS Mitigation Flow:**
  - Volumetric attack detected on customer IP address within the Lumen Tier-1 Internet Backbone using behavioral patterns
  - Affected traffic is then automatically diverted through Lumen DDoS mitigation scrubbers as it enters the Lumen network and Lumen® Rapid Threat Defense countermeasures are applied to neutralize the attack before the customer is affected
  - Clean traffic is then automatically returned to the customer



Lumen Defender℠ Plus for Intelligent Internet

Network-embedded, customizable upstream protection powered by Black Lotus Labs® intelligence.

- **Threat Flow**
  - Threat detected within the Lumen Tier-1 Internet Backbone
  - Threat categorized as low, medium, high, very high, or severe, and processed per configurable blocking policy
  - Threat automatically blocked by Lumen Defender architecture
  - Non-blocked traffic forwarded to the customer



Lumen Defender℠ Essentials for Intelligent Internet

Network-embedded severe risk level protection powered by Black Lotus Labs® intelligence.